# De effectiviteit van echografie in de huisartspraktijk: Het optimaliseren van de behandeling van patiënten met schouderpijn.

Gepubliceerd: 05-07-2010 Laatst bijgewerkt: 19-03-2025

Subacromial disorders are considered to be the most common pathology affecting the shoulder. The optimal therapy for shoulder pain (SP) in primary care is yet unknown, since clinical history and physical examination do not provide decisive evidence...

Ethische beoordeling	Positief advies
Status	Werving gestopt
Type aandoening	-
Onderzoekstype	Interventie onderzoek

# Samenvatting

### ID

NL-OMON21348

Bron NTR

Verkorte titel MUST

#### Aandoening

Patients with shoulder pain in primary care

### Ondersteuning

**Primaire sponsor:** Dept. of General Practice, CAPHRI reserach school Maastricht University PO BOX 616 6200 MD Maastricht The Netherlands

**Overige ondersteuning:** The ultrasounds are sponsored by: MCC Omnes

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Milaanstraat 100 6135 LH Sittard

#### **Onderzoeksproduct en/of interventie**

#### Uitkomstmaten

#### Primaire uitkomstmaten

A 20% difference between study groups in patient-perceived recovery after 52 weeks.

# **Toelichting onderzoek**

#### Achtergrond van het onderzoek

Background:

Subacromial disorders are considered to be the most common pathology affecting the shoulder. The optimal therapy for shoulder pain (SP) in primary care is yet unknown, since clinical history and physical examination do not provide decisive evidence as to the pathoanatomical origin of the symptoms, whereas this is needed to make adequate decisions regarding treatment. This can be solved by applying ultrasound imaging (US), an accurate method in diagnosing SP, having a clear relationship between diagnosis and therapies available. Yet, the cost-effectiveness of applying US in the management of SP in primary care has not been studied.

Objective(s)/ research question(s):

Optimizing the management of non-chronic SP in primary care by the introduction of US as a diagnostic triage tool. The following questions will be addressed:

1. What are the effects of diagnostic US and its related treatment decisions on clinical recovery and health-related quality of life compared to the usual primary care?

2. What is the cost-effectiveness of management that includes diagnostic US compared to the usual primary care?

3. What is the prevalence of the specific subacromial disorders?

Study design:

Randomized (at patient level) controlled trial, with a 52 week follow-up period.

Study population(s):

Patients aged between 18 and 65 years consulting the GP with a new episode of SP, suggestive for a subacromial disorder.

Intervention:

Therapeutic strategies used in both groups are the same except those used in the intervention group will be tailored based on the US results.

#### Outcome measures:

Primary outcome measures (patient-perceived recovery and all costs) and secondary outcome measures (shoulder pain, performance of daily activities, and health-related quality of life) will be assessed at baseline, and at 12, 26, 39 and 52 weeks after inclusion.

Sample size calculation/data analysis:

To detect a difference of 20% in patient-perceived recovery between the two groups, 226 patients have to be included. Study groups will be compared for their mean changes by an independent samples t-test and the Chi-square test.

Economic evaluation:

To determine the cost-effectiveness of US versus usual care, an economic evaluation will be performed from both a health care and societal perspective with a time horizon of 52 weeks.

#### Doel van het onderzoek

Subacromial disorders are considered to be the most common pathology affecting the shoulder. The optimal therapy for shoulder pain (SP) in primary care is yet unknown, since clinical history and physical examination do not provide decisive evidence as to the pathoanatomical origin of the symptoms, whereas this is needed to make adequate decisions

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regarding treatment. This can be solved by applying ultrasound imaging (US), an accurate method in diagnosing SP, having a clear relationship between diagnosis and therapies available. Yet, the cost-effectiveness of applying US in the management of SP in primary care has not been studied.

#### Onderzoeksopzet

At baseline, demographic information will be collected including age, sex and profession, as well as disease specific information regarding the affected side, onset, duration of symptoms, possible cause of complaints, history of shoulder complaints, neck complaints and dominant arm.

The following outcome measures will be collected at baseline, 12, 26, and 52 weeks after inclusion:

- 1. Patient-perceived recovery: Global Perceived Effect questionnaire;
- 2. Shoulder pain: Shoulder Pain Score;
- 3. Performance of daily activities: Shoulder Disability Questionnaire;
- 4. Health-related quality of life: EQ-5D;
- 5. Cost-effectiveness: Cost questionnaire (additional questionnaire at 39 weeks).

#### **Onderzoeksproduct en/of interventie**

In a pragmatic design, which initially follows the guideline for shoulder pain of the Dutch College of General Practitioners, a study consisting of two phases will be carried out: a Qualification Period of two weeks followed by a randomised controlled trial with a 50 week follow-up period. The Qualification Period aims to filter out patients with a favorable natural course; this fits within the first line treatment as recommended in the guideline for shoulder pain of the Dutch College of General Practitioners. During this Qualification Period all patients are advised to start with paracetamol or NSAID in maximum dosage on a time contingent base, receive advice regarding activities of daily living, work, hobbies and sports, and they are referred for ultrasound of the shoulder to the radiology department of the Maastricht University Medical Centre (MUMC) or Orbis Medical Centre (OMC) in Sittard-Geleen, The Netherlands. Based on the qualification assessment at 2 weeks, patients with insufficient improvement gualify for the RCT. At that moment, these patients are randomly assigned to the intervention or the control group. The therapies used in both groups are the same except that therapies used in the intervention group will be tailored based on the US results. In the intervention group ultrasound of the shoulder will be used as a diagnostic triage tool to start tailored treatment:

1. Tendinopathy: Physiotherapy;

- 2. Bursitis: Corticosteroid injection;
- 3. Calcific tendinitis: Corticosteroid injection;
- 4. Partial-thickness tendon tear: Physiotherapy;
- 5. Full-thickness tendon tear: Referral to an othopedic surgeon.

In case pathology other than rotator cuff disorders is diagnosed, it will be treated according to this diagnosis (e.g. in cases of signs of rheumatoid arthritis patients are referred to a rheumatologist). If there is no detectable pathology, usual care according to the guideline for shoulder pain of the Dutch College of General Practitioners will be advised. In cases in which multiple ultrasound findings are present, the most relevant abnormality will be selected by the general practitioner on basis of the clinical findings. With an explanation, general practitioners are allowed to deviate from the advised treatments steps.

Usual care according to the guideline for shoulder pain of the Dutch College of General Practitioners will be applied in the control group. It consists of a pragmatic, stepwise approach; a wait-and-see policy with advice and analgesia for another 2 weeks; in persisting cases corticosteroid injections and referral to a physiotherapist are advised, depending on the level of pain and functional limitations respectively; referral to a hospital specialist is advised if conservative treatment fails.

# Contactpersonen

### **Publiek**

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### Wetenschappelijk

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### **Deelname eisen**

### Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Patients who visit their general practitioner with:

- 1. Shoulder pain upon abduction with painful arc;
- 2. Symptoms lasting no longer than three months;
- 3. First episode of SP for 12 months;
- 4. Men and women aged between 18 and 65 years.

#### Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

- 1. Consultation or treatment for SP in the past three months;
- 2. Glenohumeral external rotation range of motion less than 45 degrees;

3. History of fractures of the proximal humerus or acromion, dislocation and/or surgery of the affected shoulder;

4. Shoulder complaints caused by rheumatic disease, suspected referred complaints or extrinsic cause;

- 5. History of depressive or anxiety disorders, or pain catastrophising;
- 6. Inability to complete a questionnaire independently;
- 7. Unable to give informed consent (dementia or psychiatric disorders);
- 8. Involved in disability or liability procedures.

## Onderzoeksopzet

### Opzet

Туре:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blindering:	Open / niet geblindeerd
Controle:	Geneesmiddel

#### Deelname

Nederland	
Status:	Werving gestopt
(Verwachte) startdatum:	04-10-2010
Aantal proefpersonen:	226
Туре:	Werkelijke startdatum

# **Ethische beoordeling**

Positief advies	
Datum:	05-07-2010
Soort:	Eerste indiening

# Registraties

### **Opgevolgd door onderstaande (mogelijk meer actuele) registratie**

ID: 38120 Bron: ToetsingOnline Titel:

### Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

### In overige registers

Register	ID
NTR-new	NL2277

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Register	ID
NTR-old	NTR2403
ССМО	NL31681.068.10
ISRCTN	ISRCTN wordt niet meer aangevraagd.
OMON	NL-OMON38120

# Resultaten

Samenvatting resultaten

N/A